

### **EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Chris Comuntzis, Reg. No. 31,097 on Aug 27, 2009.

2. The claims are amended as follows:

Claim 1, line 1 that reads – A method for determining the semantic similarity of words in a plurality of words –

Changed to -- A computerized method for determining the semantic similarity of words in a plurality of words –

Claim 10, line 1 that reads -- A method for determining the semantic similarity of words in a plurality of words –

Changed to – 'A computerized method for determining the semantic similarity of words in a plurality of words'

### REASONS FOR ALLOWANCE

3. The following is an examiner's statement of reasons for allowance:

**Claims 1-10** are considered allowable since when reading the claims in light of the specification, as per MPEP §2111.01, none of the references of record alone or in combination disclose or suggest the combination of limitations specified in independent claims, including an invention of a computerized *method for determining the semantic similarity of words from a set of documents, for retrieval of information in an information system.*

Specifically, independent claim 1 discloses the steps of identifying word sequences comprising the word and a predetermined number of other words [defined at e.g. Fig.2, step 215; p. 6, ln 20 to p. 7, ln 18]; calculating a relative frequency of occurrence for each distinct word sequence among word sequences [defined at e.g. Fig. 2, step 220; p. 7, ln. 19 to p. 8, ln. 4]; generating a fuzzy set comprising, for word sequences containing the word, corresponding fuzzy membership values [defined at e.g. Fig.2, step 225; p. 8 ln. 5 to p. 9, ln. 15]; and calculating and storing a probability that the first word of the pair is semantically suitable as a replacement for the second word of the pair [defined at e.g. Fig. 2, step 230; p. 9, ln. 16 to p. 10, ln. 20]. Independent claims 3 and 6 additionally disclose a generating means for generating a set of probabilities indicative of the semantic similarity [defined at e.g. Fig. 1, 105, Fig. 2, step 220; p. 7, ln. 19 to p. 8, ln. 4]; and query enhancement means for modifying a received search query

Art Unit: 2129

with reference to said generated set of probabilities [defined at e.g. Fig. 1, step 125, Fig. 2, step 220; p. 7, ln. 19 to p.8, ln. 4]. Independent claim 10 also discloses a set of probabilities representative of the contexts in which the word occurs [defined at e.g. Fig. 2, step 225; p. 8, ln. 5 to p. 9, ln. 15].

What the examiner found novel about the invention is the recognition of the semantic similarity to determine document similarity with no prior specific semantic knowledge or understanding by a computer as opposed to the existing applications in prior art use some kind of human intervention where a set of keywords with semantic similarity is used as a look up.

A practical application of the invention is information or document retrieval [defined at e.g. p 5, ln 05-25].

4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### **Correspondence Information**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KALPANA BHARADWAJ whose telephone number is (571)270-1641. The examiner can normally be reached on Monday-Friday 7:30am 5:00 pm EST.

Art Unit: 2129

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Vincent can be reached on (571) 272-3080. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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